DUAL DIGITAL TV TUNER
(ATSC & ATSC MH)

DTV-200

DUAL DIGITAL TV TUNER **Owner's Manual**

ACCELEVISION®
The Leader In Mobile Entertainment Systems

It is highly recommended to connect car charger after starting car first for safety reason.
You should connect red line into +12(or+24Volt) power of battery when you install it in your vehicle. The black line has to be connected into GND(Ground).
It doesn't work and maybe damaged if you connect it wrong side.

Contents

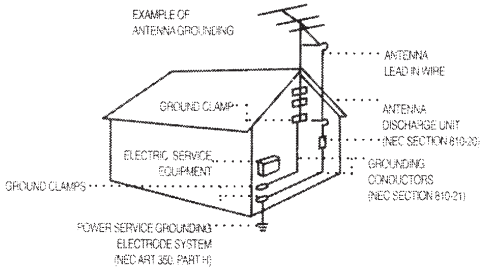
-. Important Safety Instructions 3
-. Precautions 4
-. Features 5
-. Checking Parts 6
-. Initial Setting
: Language Setting 7
: Time Zone Setting 7
: Auto Search 7
-. TV Menu
: Auto Search 8
: Quick Search 8
: Channel Hop 8
: Channel Edit 9
: Aspect Ratio 9
: Closed Caption 9
: Preferred Audio Language 10
: Audio 10
: Sound 10
: Hot Key 10
-. Setting Menu
: Antenna Power 11
: Menu Idioma 11
: Menu Opacity 11
: Time Zone 12
: SW Update 12
: Factory Reset 12
-. Info Menu
: Viewing Current Channel Information 13
: EPG(Electronic Program Guide) 13
: Signal Meter 13
-. Specifications 14
-. Trouble Shooting 15

Important Safety Instructions

Always be careful when using your product. To reducce the risk of fire, electrical shock and other injuries, keep these safety.
Precautions in mind when installing, using and maintaining your product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Cleaning-Unlpug and seperate any power source and use a dry cloth only.
7. Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
8. Do not install or use near any heat source such as radiators, heat registors, stoves, or other products (including amplifiers) that produce heat.
9. Do not tamper with the safety purpose of the polarized or grounding-type plug. A polarized pulg has two blades with one wider than the other.
   A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
11. Only used the attachments / accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
    When a cart used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

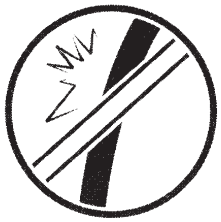
13. Unplug this product during lightning storm or when unused for long period of time.
14. Refer all servicing to qualified service personnel. Servicing required when the product has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objectes have fallen into the product, the apparartus has been exposed to rain or ,moisture, does not operate normally, or has been dropped.



15. Lightning-For added protection for this product during a lightning storm, or when it is left unattended and unused for long period of time.
16. Overloading-Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
17. Object and Liquid Entry-Never push objects of any kind into this product through openings as they may touch dangerous voltage point or short-out parts that could result in a fire or electricic shock. Never spill of any kind on the product.
18. Servicing-Do not attempt to service this product yourself as openings or disassembling the cabinet may expose you to dangerous voltage or other hazads. Refer all servicing to qualified service personnel.
19. Damage Requiring Service-Turn the TV off, unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    A. When the power-supply cord or plug is damaged.
    B. If liquid has been spilled, or objects have fallen into the product.
    C. If the product has been exposed to rain, water or other liquid.
    D. If the product do not operate normally by following the operating instructions, Adjust only those control that are covered by the operating instructions as an improper adjustment of other control may result in damage an will often required extensive work by a qualified technician to restore the product to its normal operation.
    E. If the product has been dropped or damaged in anyway, and.
    F. When the product exhibits a distinct change in performance - this indicates a need for service.
20. Replacement Parts-When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer. or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazad and will avoid warranty.
21. Safety Check-Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
22. Heat-The product should be situated away from heat source such as radiators, heat registers, stoves, or other product(including amplifiers) that product heat.
23. The Socket-outlet shall be installed near the equipment and shall be easily accessible.
24. When used outside of the U.S., it may be used with HAR cord with fitting of an approved agency is employed.
25. Do not use this product in a confined space such as a book case or similar unit. Allow adequate air circulation around this product.

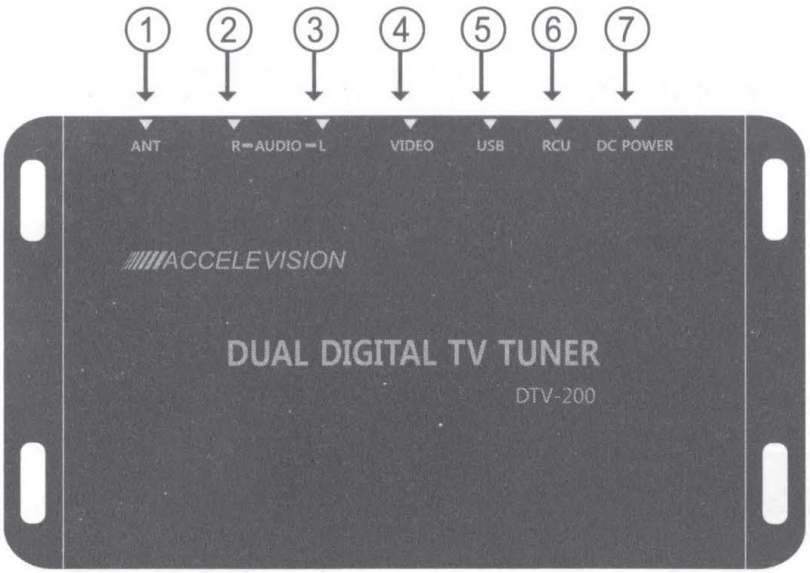
Precautions

1. Do not use this product in temperature higher than 40°C(104°F) and lower than 0°C(32°F).
2. Do not store this product in temperature higher than 60°C(140°F) and lower than -10°C(14°F).
3. Keep the unit away from direct sunlight.
4. Do not expose the unit to any kind of liquid and rainwater.
5. Keep the unit away from an open flame such as fire or a fire stove.
6. Do not place the unit into a refrigerator, a washing machine, dishwasher, or a microwave oven.
7. Do not leave the unit inside of the car when the temperature outside is high to prevent any explosion or other problem.
8. Do not place the powered-on product inside of the carrying bag or plastic bag.
9. Do not drop this unit.
10. Do not place anything heavy, sharp, wet, or hot on the unit.
11. When you carry this unit, use caution to keep it from being crushed or damaged.
12. Do not cover or block the unit with bedclothes or blanket when power cord is plugged into the AC outlet or power on.
13. Check if the voltage of the power jack in your car is between 12V~24V before using car charger.
14. When using car charger, start car first and connect car charger afterwards.
15. Use the DC adaptor included along with the unit only. Wrong DC adaptor usage may result in the recharging problem.
16. To prevent any breakage or damage on the antenna. pull the antenna to the very end to change the direction.



17. To protect your hearings, set the volume to the lowest before use earphones. Do not listen at extremely high volume level as extended high volume listening can cause hearing loss.
18. Be careful with pulled out built-in antenna not to poke any part of body or other people.
19. Parents shall be concerned about the usage of this unit by underage children not be exposed to the broadcastings with inappropriate rate.
20. Do not attempt to disassemble this product.

Product Features



1. External Antenna Input
2. Audio-R Output
3. Audio-L Output
4. Video Output
5. USB Port for update
6. Remote Control Receiver
7. DC Power Input

Remote Control

HOT :
Press to change DTV & MH

OK(Channel Info) :
While using on-screen menus. Press to select(or change) a particular function.
In viewing state. Press OK to bring up the Channel Info Banner with station and program information of current channel.

Up, Down :
Channel up or down, move the cursor on OSD menu.

Left, Right :
Volume up or down, move the cursor on OSD menu

Menu :
Press to display the OSD menu(s) or to exit the OSD menu.

Channel Number Buttons :
Press to directly tune to a particular channel.

: FAV(Favorite Channel)
Press to switch to your favorite channel(s).
You can edit favorite channel(s) in Channel Edit menu.

: POWER
Press to turn the receiver on or off.

: MUTE
Press to turn-off the sound, press again to restore the sound.

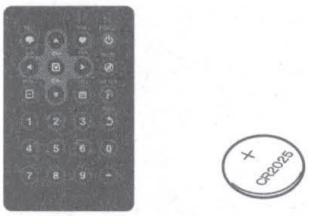
: METER
(Signal Quality Information)
Press to view signal strength of the current channel.

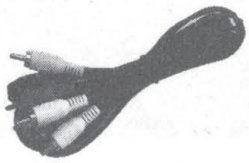
: EPG
(Electronic Program Guide)
Press to display the OSD EPG.

: PREV(Previous Channel)
Press to alternate between the current channel and the last channel that was viewed.

: Dash(Dot)
Press to tune with RF number first.

Checking Parts

DUAL DIGITAL TV TUNER	Remote Unit(with Battery)	DC Power Cable
		

A/V Cable	Pole Antenna	IR Receiver	Operation Manual
			

The items color and shape may vary depending on the model.

Powering On This Product

Using Car Charger

-. Connect the provided car charger to the DC input jack on the rear side of the product, and then connected it to the power terminal in your car.

It is highly recommended to connect car charger after starting car first for safety reason.
You should connect red line into +12(or+24Volt) power of battery when you install it in your vehicle. The black line has to be connected into GND(Ground).
It doesn't work and maybe damaged if you connect it wrong side.

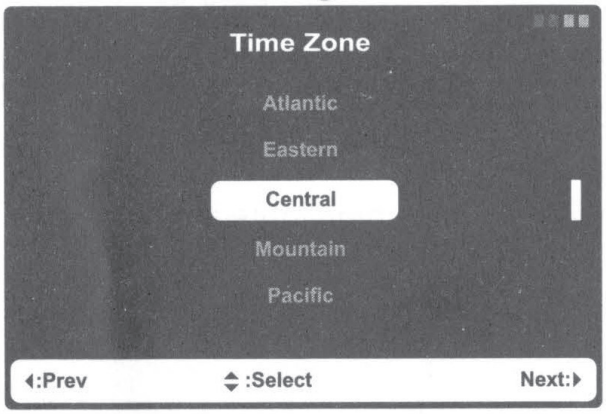
Initial Setting(Language, Time Zone & Auto Search)

This product(DTV-200) will be operated automatically for the first time after applying power, as show bellow.

1. Language Setting

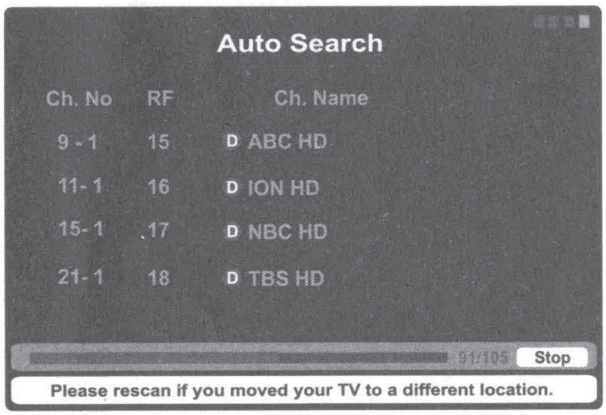
Press "☑" to choose the language on menu: English or Espanol select your perferred language.

2. Time Zone Setting



Moved Up/Down buttons(▲▼) of remote unit.
Press "☑" to selected the time zone where you stayed location.
Press "☑" to selected.

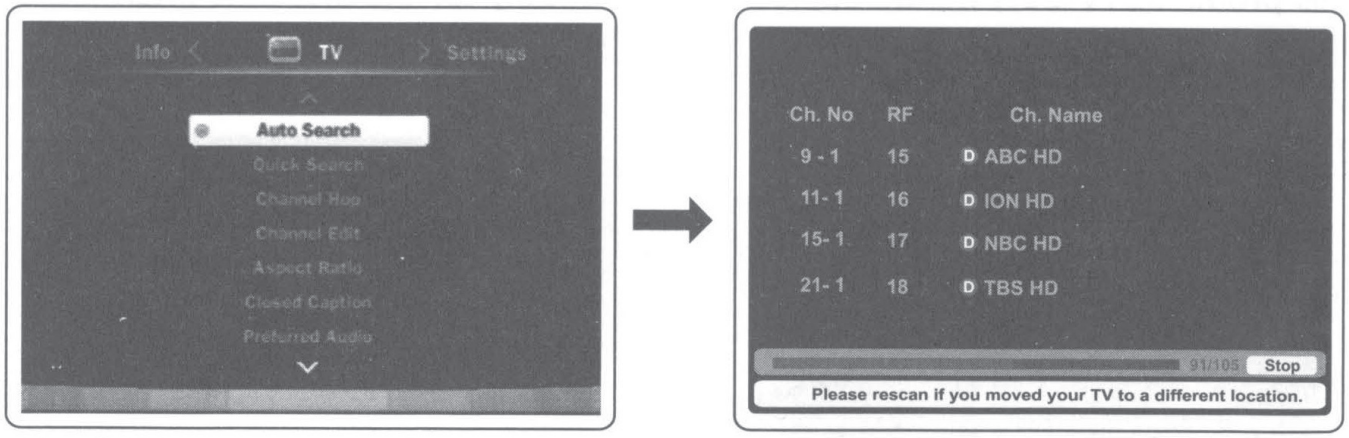
3. Auto Search



* RF channel may differ from virtual channel number. e.g. For RF channel 19, virtual channel can be 32-1 or 32-2.
* Select "Rescan" to delete the channel list and do a full scan. Select "Update" to do an additional scan except existing channel list.

TV Menu

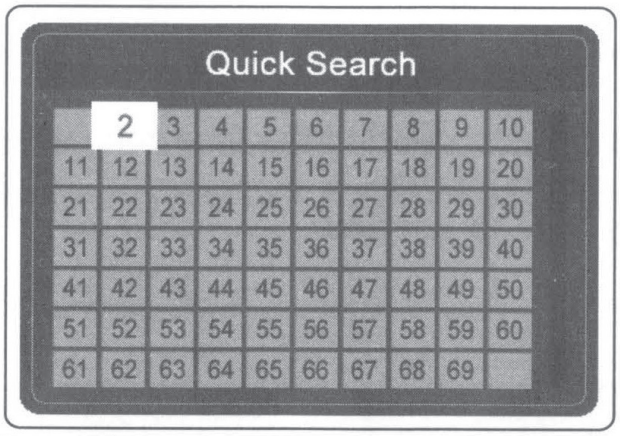
Auto Search



Use "⊡" → "Auto Search" and select scan mode(Rescan or Update).
Search channels will be listed in the box. To stop, press "☑" button.

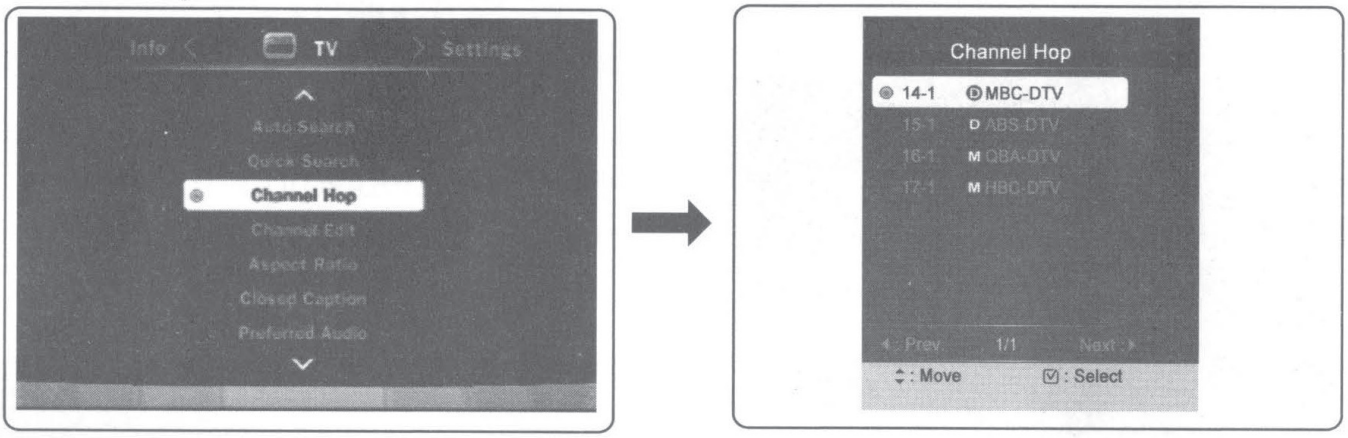
* RF channel may differ from virtual channel number. e.g. For RF channel 19, virtual channel can be 32-1 or 32-2.
* Select "Rescan" to delete the channel list and do a full scan. Select "Update" to do an additional scan except existing channel list.

Quick Search



"Quick Search" is for user's easy RF channel tuning.
Move to RF number you want using direction buttons and press "☑" button to watch the desired RF channel.
Channel showing is highlighted in yellow.

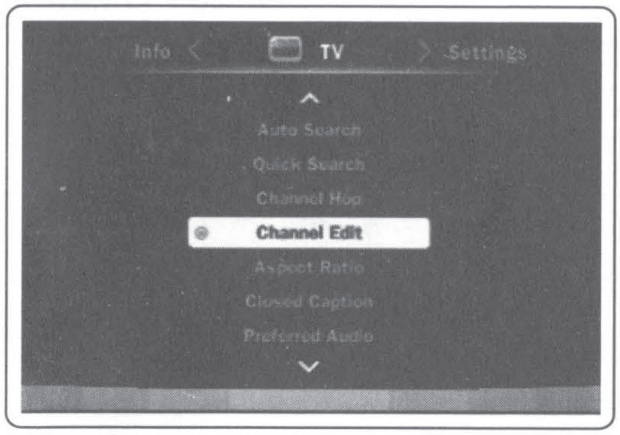
Channel Hop

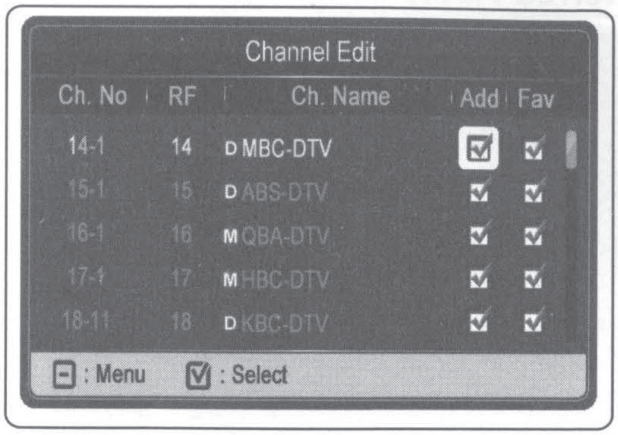


"Channel Hop" is for user's easy move to desired channel. Scanned channels are saved at "Channel Edit" and added channels are listed at "Channel Hop".
Move up and/or down using up(▲) and down(▼) buttons. Move next and/or before page using left(◀) and right(▶) buttons.
Press "☑" button to watch the selected desired channel.

TV Menu

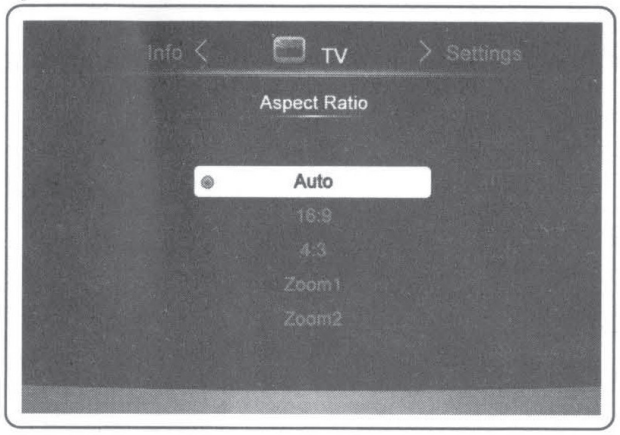
Channel Edit





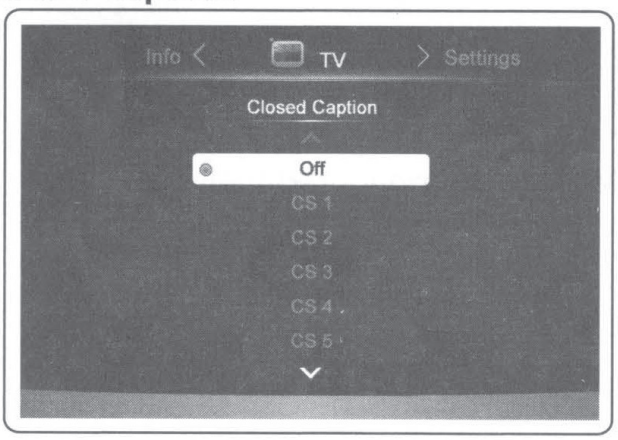
Use "⊟" →"Channel Edit" menu to enter channel edit menu.
Use up(▲) and down(▼) to move to previous/next channel list.
Use left(◀) and right(▶) to move to the next channel list.
Press ☑ button to activate or deactivate the channel.
User will be move within added channels only when change channel using direction keys.
User can check the channel by simply moving the cursor to tune to the corresponding channel in the "Channel Edit" Menu.
The ☑ key will be activated when Auto Search is selected, and users can delete the undesirable or poor signal channels by deactivating the ☑ key in the Add Menu.
The channels deactivated in this menu will be not show up in the "Channel Hop" Menu.

Aspect Ratio



Use "⊟" → "Aspect Ratio" menu to set up the display aspect ratio.
-. User can select among "Auto", "16:9", "4:3", Zoom1 and Zoom2.

Closed Caption



Use "⊟" → "Closed Caption" menu to set up the closed caption service.
-. User can select CC service using up and down button.
-. To disable caption display, select "Off"

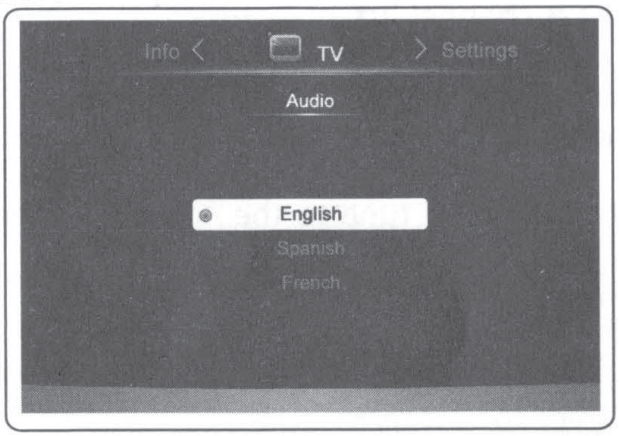
www.accele.com

TV Menu

Preferred Audio Language

Use "⊟" → "Preferred Audio Language" menu to set up the preferred audio language.

Audio



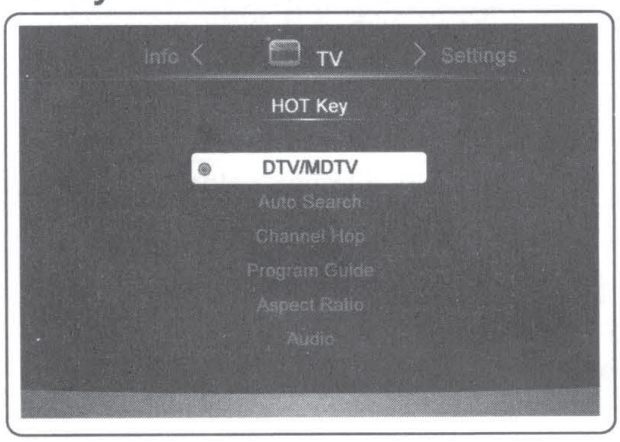
Use "⊟" → "Audio" menu to set up the audio.

⚠ Options to be listed based on the MTS (Multi channel Television Sound) information.

Sound

Use "⊟" → "Sound" menu to set up the sound.

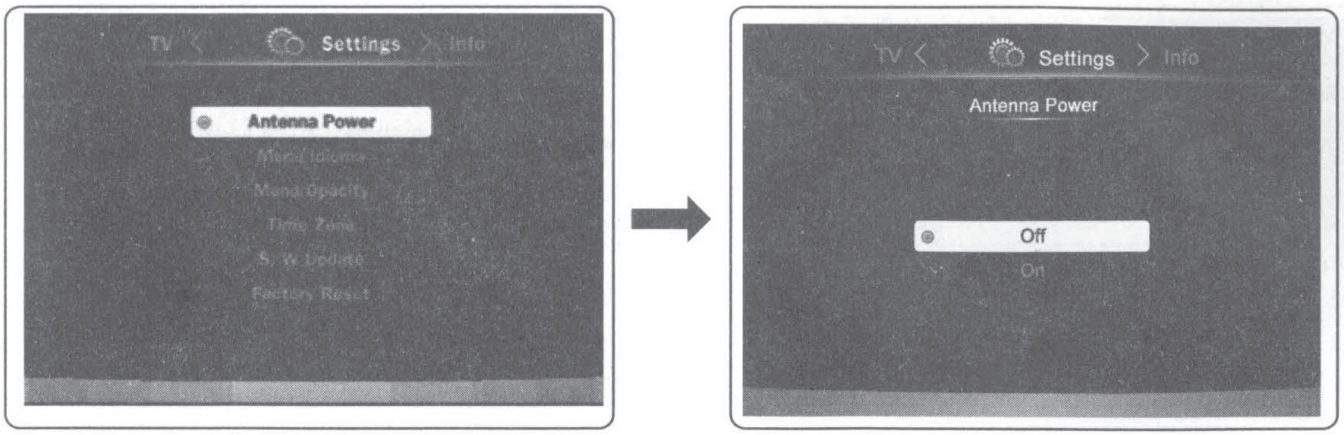
Hot Key



Use "⊟" → "TV" → "Hot Key" menu and select the most frequenctly used function. User can use the hot keys of Remote Unit to quickly launch the configured menu.

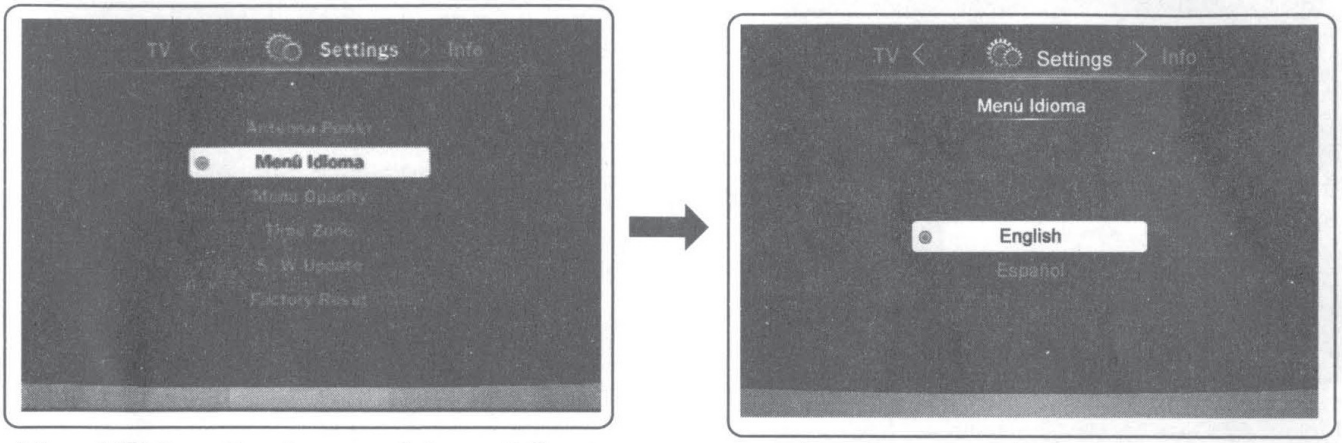
Setting Menu

Antenna Power



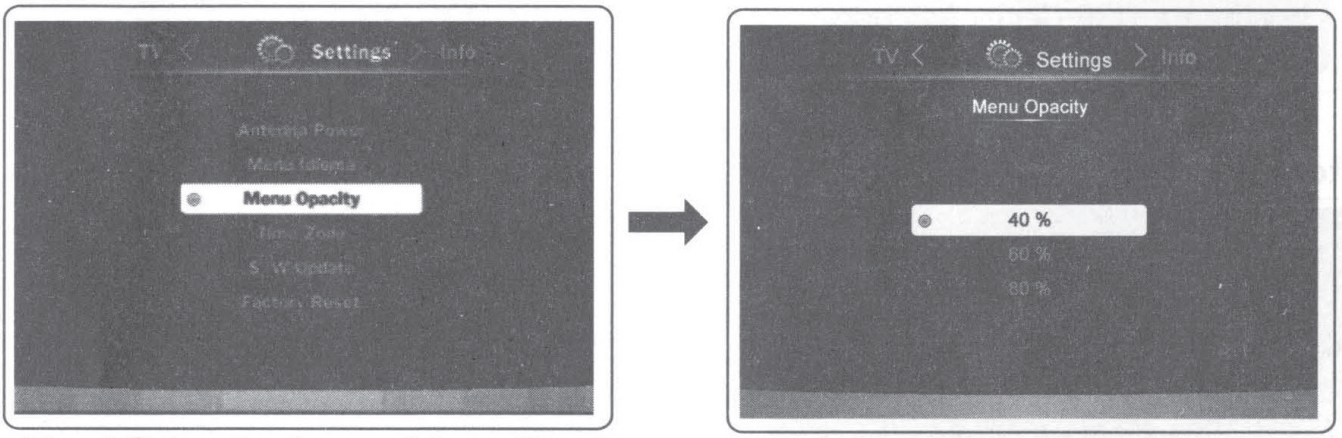
Use "⊟" → Settings → Antenna Power menu to changed supplied power.

Menu Idioma



Use "⊟" → Settings → Menu Idioma menu to change menu language.

Menu Opacity

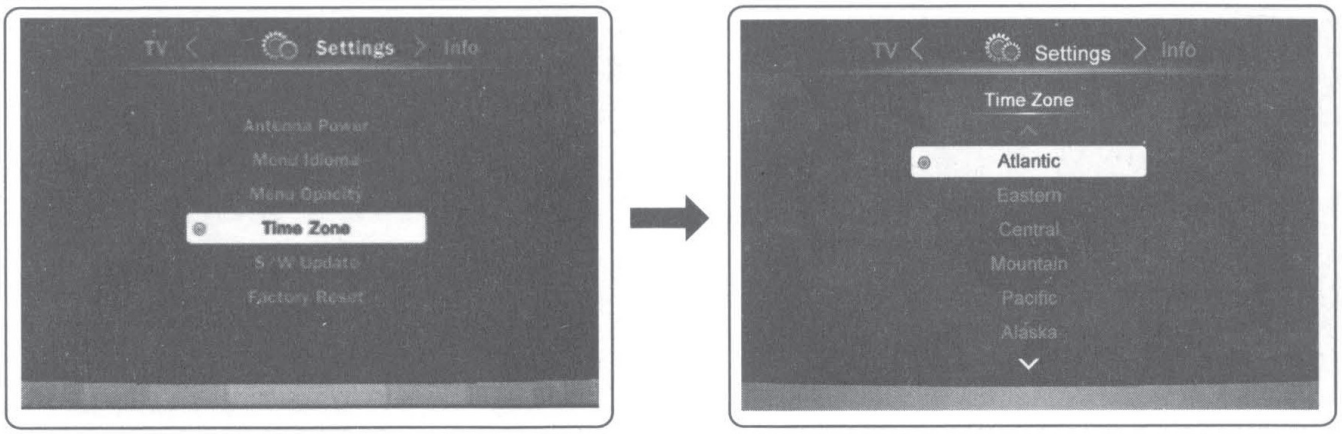


Use "⊟" → Settings → Menu Opacity menu to change menu opacity.

www.accele.com

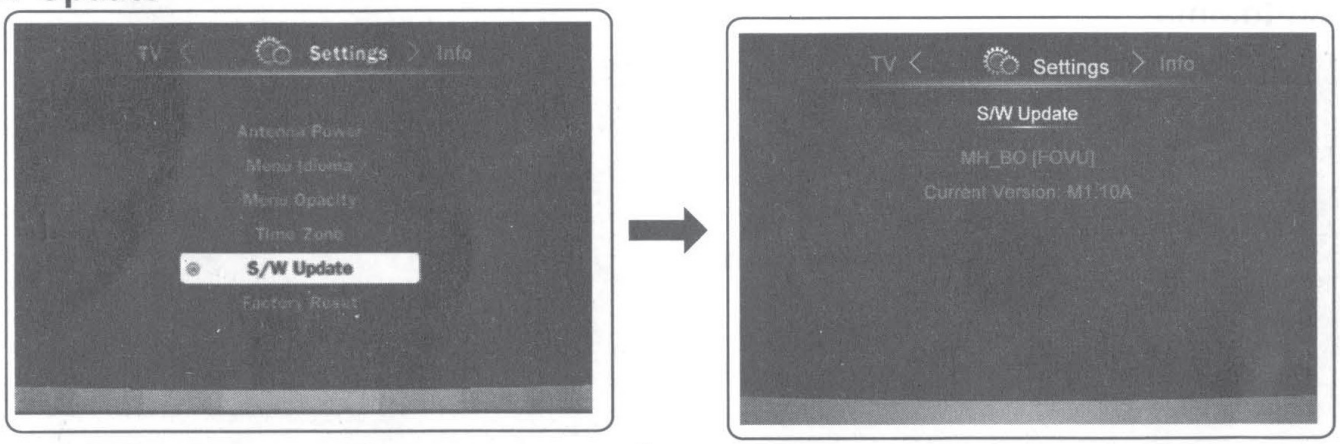
Setting Menu

Time Zone



Use "⊟" → Settings → Time Zone menu to change time zone.

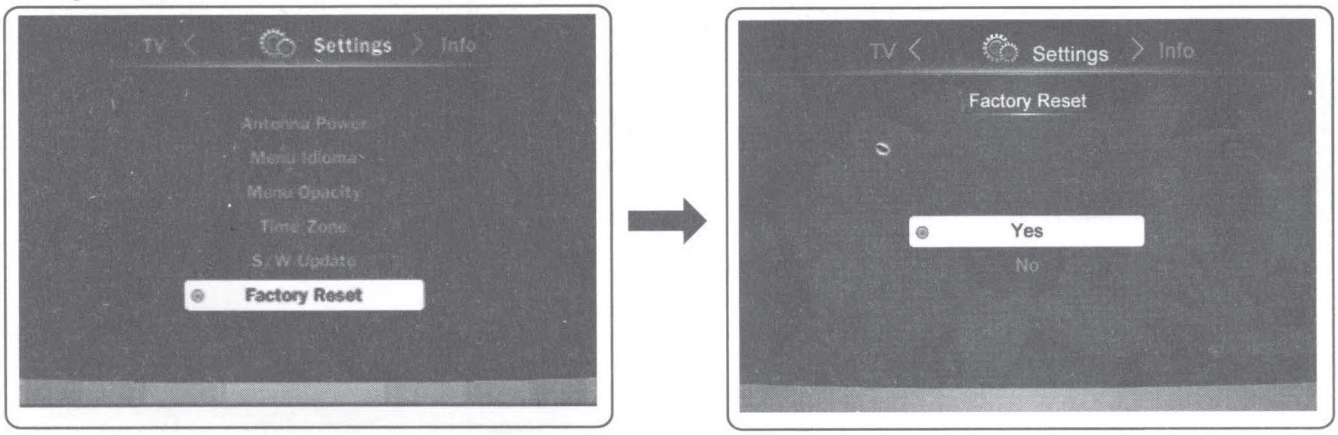
SW Update



Use "⊟" → S/W Update→ Menu to change software.

1. Turn on your TV.
2. Connect a USB device to the rear panel of the product.
3. When a USB device is connected to the product, the connected device window appears. Select a connected device, and then press ENTER(☑).

Factory Reset



Use "⊟" → Settings → Factory Reset menu to initialized the product as factory default state.

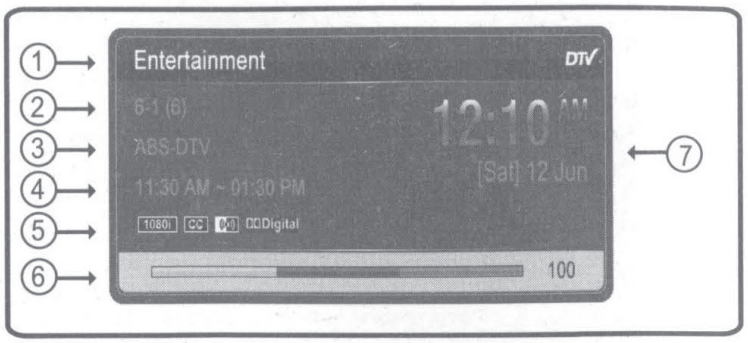
Information Menu

Viewing Current Channel Information

To view the info banner, press ☑ while viewing program. To hide the info banner, press ☑ again. The info banner will vanish after 1 second.

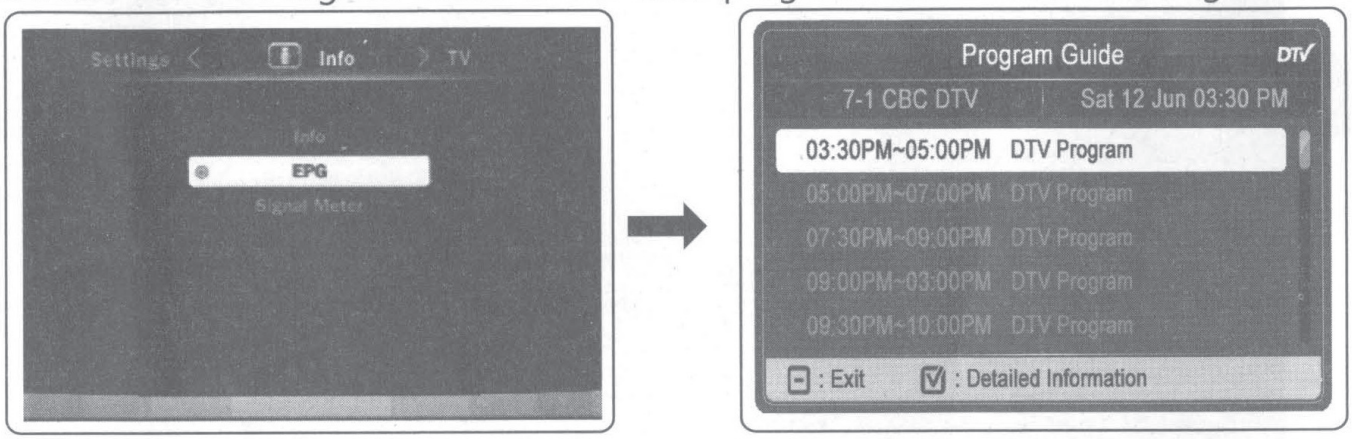
Information Banner

1. Program Title
2. Channel Number
   - ▶ The major channel number and the sub/minor channel number
3. Broadcaster Name :
   The name of stations.
4. Program start and ending time.
5. **1080i** shows current broadcast resolution.
   CC is highlight when Closed Caption service is available.
   is highlight when multilingual audio tracks are available.
   DIGITAL is highlight when multi-channel Dolby Digital surround sound source.
6. Signal Strength
7. Current time and date.



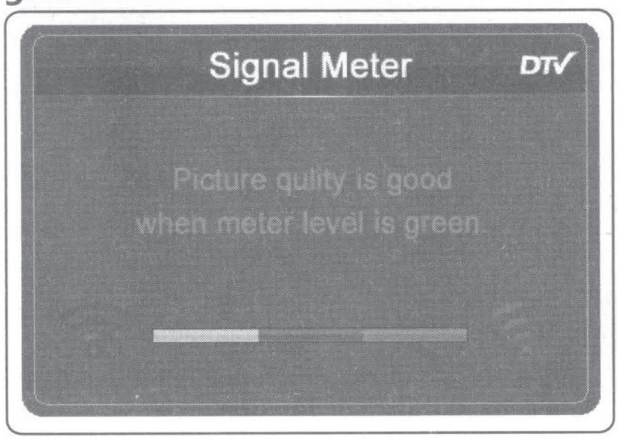
EPG(Electronic Program Guide)

You can use the Program Guide to see what programs are on and to change channels.



Use "⊟" → Infor → EPG menu to view program information such as title, schedule and other service.

Signal Meter



To view Antenna signal strength,
Press "Meter" button of Remote.
Check the "Signal Meter" if the video signal is blocked.
Antenna is needed to adjust if the signal power is poor.

Specifications

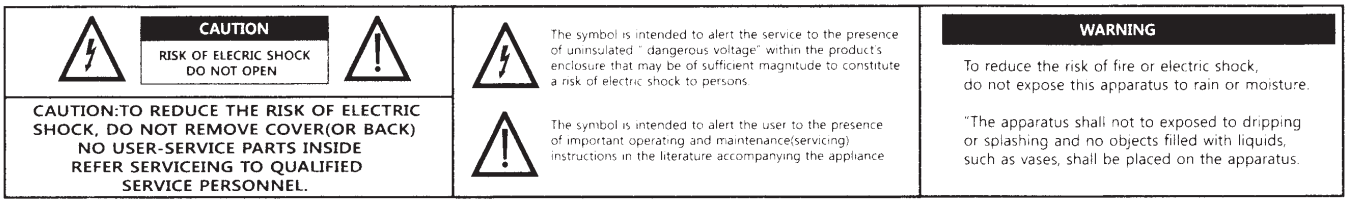
ITEMS		ATSC Specifications	ATSC MH Specifications
RF Specifitions	Input Frequency	54~806MHz (VHF/UHF)	54~806MHz (VHF/UHF)
	RF Sensitivity	-80dBm ~-4dBm	-92dBm ~ +10dBm
	Impedance	50Ω	50Ω
	Antenna	Pole type(UHF)	Pole type(UHF)
Baseband	Carrier of Demodulation	ATSC	ATSC M/H
	Baseband of Demodulation	8-VSB	Advanced 8-VSB
Multimedia (Video)	Coding	MPEG2, MP@ML,MP@HL	MPEG4, Part10, AVC/SVC
	Resolutions	1920 x 1080*i*	416 x 240
	Aspect Ratio	4:3, 16:9	4:3, 16:9
	Frame Rate	30 Frames/s	30 Frames/s
	Bit rate	29Mbps	2Mbps
Multimedia (Audio)	Decoding	MPEG2, AC-3	MPEG4, HE AAC v2
	Sampling	16,22.05 & 24kHz with SBR	16,22.05 & 24kHz with SBR
		32,44.1 & 48kHz	32,44.1 & 48kHz
Audio Process	Mode	Mono & Stereo	
	Bit rate	Mono : 24 ~ 256kbps	
		Stereo : 32 ~ 256kbps	
Memory	Nand Flash	8M	
Output	Video(Level & Format)	1.0Vp-p, 75Ω NTSC	
	Audio	0.5Vrms, 10kΩ	
Input	IR Senser	±10ft(3.0m) ± 25°	
	Download	USB 2.0	
Accssories	A/V Cable	4.9ft(1.5m), RCA to RCA Jack	
	DC Power Cable	10ft(3m), DC12/24V	
	IR Cable	6.6ft(2m), mini phone-jack	
	Remote Unit	24 keys Card type	
	Operating Manual	1 sheet	
Others	ANTENNA	UHF mono Pole RF Antenna(50Ω)	
	Current	350mA, 12V DC / 175mA, 24V DC	
	POWER	DC 12V/24V	
	DIMENSION	5.4"(136mm)W x 3.0"(75mm)D X 0.9"(22mm)H	
	WEIGHT	7.7oz(220g)	
	OPERATING ENVIRONMENT	Operating Temperature : 32°F(0°C)~+104°F(+40°C)	
		Operating Humidity : 10 ~ 80%	

Trouble Shooting Guide

If you are having difficulty with your TV, follow the trouble shooting guides below.
If probelms persist, call or contact your local service technician for assistance.

Symptoms	Possible Solutions
The TV won't turn on	-. Check to make sure the power cord is plugged into the wall outlet securely. -. Check if AC outlet works properly using other appliance.
Intermittent signal or no signal	-. Make sure your antenna is connected without damage. -. The antenna signal strength may be low. Check the signal meter on the receiver to see if the signal is strong enough. If not, adjust your antenna system or moved other place. -. If you are using powered antenna, make sure the power boost is on. -. Move your TV to window if you are inside. -. Move your TV away from other appliances that cause interference.
Poor or no sound	-. Check if volume is set high enough. -. Try another audio language. -. Check earphones if it works properly in case you are using it.
Picture is distorted	-. Make sure the correct display mode is selected. -. Check if Aspect Ratio is set properly.

Caution Notice


CAUTION
RISK OF ELECRIC SHOCK
DO NOT OPEN
CAUTION:TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER(OR BACK)
NO USER-SERVICE PARTS INSIDE
REFER SERVICEING TO QUALIFIED SERVICE PERSONNEL.
The symbol is intended to alert the service to the presence of uninsulated " dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
The symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the appliance.
WARNING
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
"The apparatus shall not to exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION :
Any changes or modifications in construction of this device without written authorization are not expressly approved by the party responsble for compliance, could void the user's authority to operate equipment.

NOTE :
This equipment has been tested and found to comply with the limits for a Class B digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, use and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television receiption.
Which can be determined by turning the equipment off and on, the user is encouraged to try the correct the interference by one or more of the following measures
: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

www.accele.com